



THE CAIRNGORMS LOCAL BIODIVERSITY ACTION PLAN

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and

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FORWARD

LOCAL ACTION, GLOBAL LINKS

If you've an old dictionary in the house, don't bother searching it for the word 'biodiversity'. It won't be there. To some people, familiar with using and hearing the word over the last decade or so, that omission may come as a surprise. To others, perhaps sceptical about what they think sounds like jargon, it might make them hanker for a time of plainer talking.

But biodiversity - the term that encompasses the richness and variety of life - is here to stay. Wet behind the ears in 1992 at the first 'Earth Summit' in Rio, the word has hardened. By the time of the second summit, in Johannesburg, biodiversity had already been a spur to action in many communities.

The key biodiversity convention drawn-up at the Rio summit signalled the commitment of many governments to biodiversity conservation. But a major part of its significance is based on what has happened since then at more local levels. Far from the corridors of power, communities in many continents have played a part in discussing, documenting, planning and acting to cherish biodiversity in their own areas.

Many people in communities around the Cairngorms area have been involved in that process during the last few years. Public consultation meetings have been held, an audit of biodiversity in the area published and practical action carried out, including very popular and successful work to boost the fortunes of farmland birds by traditional methods of giving them access to grain in winter. In 2001, a set of draft plans was produced to highlight the scope for taking forward action for biodiversity in four broad categories of Cairngorms places.

Advice from a wide range of people who commented on these drafts has been used to mould this new publication. The production of these 'Habitat Action Plans' is a major milestone. It represents the distilled wisdom, local knowledge and sheer hard work of the teams of people (representing many different interests) who have helped to conceive them and the many individuals whose comments have helped to shape them.

But milestones are way-marks, not end-points. What happens next will be the really exciting part of the biodiversity process here. These plans will be an important aid to work on the ground both in and beyond the Cairngorms National Park. They focus attention on possibilities for action, and help to show how these opportunities link to wider action in Scotland, the rest of the UK and beyond.

Local knowledge, local enthusiasm and local action to do something positive to cherish the store of wildlife variety - that's part of the real meaning of 'biodiversity'. It's a living thread, not only of wildlife, but of people who care about the life that makes their own place on this remarkable planet so special.

DR KENNY TAYLOR

Cairngorms LBAP Project Chairman

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INTRODUCTION

Biodiversity, what is it?

Biodiversity (short for biological diversity) means the variety of life on earth. This includes all the living things and the environments of which they are part, from the magnificent Golden eagle on the mountain to the tiny woodant in the forest. Biodiversity conservation is much more than saving rare plants and animals; it acknowledges a huge array of species (90,000 are known to inhabit Scotland) and habitats, the ecological roles they perform, and genetic variation contained within and it includes us. People are a part of biodiversity not apart from it.

Why should we care?

Biodiversity is the basis of everything we regard as special and important in the Cairngorms and is at the root of all the natural processes that give us clean air, water, foods, clothing, health, relaxation and recreation. We depend upon biodiversity for the quality of our lives. It is part of our livelihoods and makes up the resources and materials that our communities, businesses and future generations depend upon. This interdependence allows continuity of the vital processes and services necessary to sustain life in the Cairngorms.

Biodiversity is an essential part of our cultural heritage

Biodiversity is essential because of its economic importance

Biodiversity is essential as a provider of natural services

Biodiversity is essential as a source of natural products

Biodiversity is important because of its intrinsic value

Our culture, landscapes, tourism, recreational and game sport, farming, crofting and indigenous industries rely on this variety persisting, so that we can thrive and develop further. The challenge is for us to develop in a way which maintains and enhances the area's biodiversity for its own sake as well as for future generations. This is the principle of sustainability.

Whilst the values of biodiversity to humans (cultural, economic, services and products) are very important, its intrinsic value is also significant. Biodiversity does not exist solely for the benefit of humankind and this innate value should be recognised and taken into account when considering our actions.

Our past needs have often been met without proper consideration of the loss and destruction of the area's biodiversity. Sustainable development is '*human development that meets the needs of the present without compromising the ability of future generations to meet their needs*'. We have all heard about the destruction of the rain forests and coral reefs. However, in the UK we have lost 98% of our wildflower meadows and 99% of our native Caledonian pinewoods. We need to halt these declines and put back, where we can, what has been lost. This is not just in protected areas, but in the wider countryside generally. In a nutshell, biodiversity and sustainability are about delivering a better quality of life to us all.

International and national action for Biodiversity

At the Earth Summit in Rio in 1992, governments across the world pledged to take urgent action to secure the future of the earth. In the UK this led to the Strategy for Sustainable Development, and the UK Biodiversity Action Plan published in 1994. This stressed the need for all parts of the UK and all sectors of society to recognise the dangers, and play their role in conserving biodiversity as a part of sustainable development.

The UK has since taken the lead internationally in turning these ideas into plans for practical action. The Scottish Biodiversity Group was set up in 1996 to oversee action in Scotland as part of a UK strategy. Now called the Scottish Biodiversity Forum, it brings together not only government, agencies, the local authorities and voluntary environmental bodies, but also representatives of groups and organisations across a wide range of Scottish society, each with an important and distinctive role to play, e.g. farmers, crofters, foresters, landowners, industrialists, academic researchers and other local people. This approach is the embodiment of the axiom *'Think globally, act locally'*.

Scottish action for Biodiversity

Local Biodiversity Action Plans (LBAPs) are a contribution to the UK Biodiversity Action Plan. The LBAP process is based on a partnership to maintain and enhance biodiversity locally. The Scottish Biodiversity Group defines an LBAP as *'a process rather than a plan in the conventional sense'*. It is a mechanism which seeks to ensure that nationally and locally important species and habitats are conserved and enhanced in a given area through local action. According to the Scottish Executive, *'the protection of Scotland's nature is too important to be left to policies on nature conservation alone'*. The main vehicle for this work across Scotland is the LBAP Steering Group, which oversees and guides the preparation, development and delivery of the LBAP in each area.

Following four Scottish pilot LBAP projects established in 1996, there is now almost universal application and coverage of LBAPs in Scotland. Although national guidance is available from the Scottish Biodiversity Group, there is considerable local flexibility in the approach and form of each LBAP, with valuable lessons learned from pilot areas now available and used to inform the process in the Cairngorms.

THE CAIRNGORMS LOCAL BIODIVERSITY ACTION PLAN PROCESS

Biodiversity in the Cairngorms and protected areas

The Cairngorms has an important and unique biodiversity resource in a local, national and international context and deserves special attention. Although it is difficult to compare and contrast different areas, the Cairngorms are widely accepted as one of the most outstanding parts of Scotland and the world. As numerous commentators have pointed out, the Cairngorms is an environment of superlatives, whether looked at from an aesthetic or scientific viewpoint.

Large parts of the Cairngorms are covered by national and international conservation designations such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), candidate Special Areas of Conservation (cSACs) National Nature Reserves (NNRs) and National Scenic Areas (NSAs). Based on 1996 figures there were 52 SSSIs covering 11,491ha, 8 NNRs covering 39,464ha, and 18 SACs and SPAs covering 16,3252ha. There are also 2 NSAs, 3 Areas of Regional Landscape significance, 2 Environmentally Sensitive Areas (ESAs), 3 Local Nature Reserves, 5 RAMSAR sites and 28 Sites of Interest to Natural Sciences. The Cairngorms are a candidate World Heritage Site for Earth Heritage and much of the biodiversity depends upon the rocks and soils found here. These designations or accolades are designed to help conserve specific areas of the Cairngorms where landscape, geology, wildlife and historic interest are of particular or exceptional importance. To find out where these designations are please refer to SNH's National Park information website at:

<http://www.snh.org.uk/strategy/natparks/sr-npc00e.htm>

Protected areas have an important role to play in conserving biodiversity, but they are inadequate in isolation. The biodiversity conservation message will have truly succeeded when the natural

heritage is cherished everywhere in the Cairngorms.

For the first time ever, and during the initial development phase of the Cairngorms LBAP process, a systematic and comprehensive assessment of the natural habitats and species of the area was undertaken and published called *'Biodiversity of the Cairngorms'*. This *'biodiversity audit'* confirmed just how special the area's wildlife was and still is, by identifying which of those species and habitats on the national lists produced by the UK Biodiversity Steering Group were present in the area.

A large proportion of these UK listed terrestrial and freshwater habitats occurred in the area and for some, such as montane and native pinewood, the Cairngorms hold a large proportion of the total UK resource. More than four hundred UK biodiversity listed species are present, including one hundred (a quarter of UK's total) on the Government's 'Priority' biodiversity list. For a considerable number of these, the Cairngorms holds a significant proportion of the UK population and range, and in a few cases, the entire population.

The work for this LBAP has helped to implement the Cairngorms Partnership's Management Strategy and encompasses all those areas within the Cairngorms Partnership's indicative area map, including Badenoch and Strathspey, Atholl and Glen Shee, The Angus glens, Upper Deeside and Strathdon and Glenlivet. To many, the intrinsic value of the Cairngorms comprises the wide variety of habitats and species in such a relatively small geographical area.

Although the Cairngorms are often valued for their wildland qualities, palaeoecological and historical studies show that today's Cairngorms landscape has been influenced by human activities since the end of the last ice age, c11,000 years ago. In caring for the natural heritage of the Cairngorms, the choice therefore is not between interference and non-interference, but between the type and extent of management that should take place.

Many books have been written about different aspects of the Cairngorms, but two recent publications in particular, the *'Biodiversity of the Cairngorms'*, and *'The Cairngorms Assets'* record the biodiversity of the Cairngorms at the end of the 20th century and these two documents are the benchmarks for checking future progress.

The Cairngorms National Park

Scotland has had a long history of debate about National Parks and in 2000 the Scottish Parliament passed the National Parks (Scotland) Act and made proposals to establish a National Park in the Cairngorms as *'a new way of caring for a special place'*.

The Scottish Parliament has decided that the aims of the Scottish National Parks will be:

- To conserve and enhance the natural and cultural heritage of the area;
- To promote sustainable use of the natural resources of the area;
- To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and,
- To promote sustainable economic and social development of the area's communities.

The Cairngorms National Park Authority will play an important part in taking biodiversity action forward. However, the National Park Authority does not exist yet, so it is difficult to identify the exact role they might play in the delivery of action. The National Parks (Scotland) Act states that the purpose of a National Park Authority *'is to ensure that the National Park aims are collectively achieved in relation to the National Park in a co-ordinated way'*.

No one can predict exactly what the management of Cairngorms National Park will be like, but

its core objectives are driven by the Rio Earth summit's two strategies of conserving biodiversity as part of a more general strategy of sustainable development. Key to the delivery of this vision is the involvement of local people. It is envisaged that the LBAP will make an important contribution to the debate on the biodiversity objectives for the Cairngorms National Park.

What is being done to maintain and enhance biodiversity in the Cairngorms?

The Cairngorms LBAP is not the first time that interested organisations and individuals have come together to manage the Cairngorms sustainably. The Cairngorms Partnership was set up in 1994 to develop an integrated management strategy for the Cairngorms area. Its Management Strategy offers a general framework to guide and encourage the sustainable use and management of land and other relevant activities in a manner compatible with environmental objectives along with the need to promote the social and economic well-being of local people. One of the key objectives of the Cairngorms Partnership's Management Strategy is *'to draw up and implement a Local Biodiversity Action Plan for the Cairngorms area'*. The present document is an important milestone in this process by using agreed general principles and directing them towards specific, measurable and achievable biodiversity actions in the Cairngorms.

Headed under the Cairngorms Biodiversity Project banner, the LBAP process was initiated in 1997 by partners in the Cairngorms Partnership. The Cairngorms LBAP is not about conserving natural habitats and species in isolation. It is about supporting the local communities who live and work within the Cairngorms, by striking a balance between the needs of people and the needs of nature and allowing local aspirations to drive the agenda.

The aims of the Cairngorms LBAP are:

- *To take forward national biodiversity priorities (UK Habitat and Species Action Plans) by helping to deliver them at a local level;*
- *To conserve locally important species and habitats;*
- *Engage local people and visitors in the management of biodiversity and ensure that they benefit from biodiversity;*
- *To bring together in partnership those working in the Cairngorms to better achieve biodiversity conservation;*
- *To deliver several key objectives in the Cairngorms Partnership's Management Strategy;*
and,
- *To set clear, achievable targets and be transparent about progress towards them.*

The project is overseen by a partnership Steering Group, which draws representatives from nineteen different organisations including local authorities, government agencies, farming groups, conservation bodies and a project officer. A smaller Management Group, comprising the core funding bodies, guides the work of the LBAP project officer.

How were the priorities, objectives and targets selected?

At the beginning of the Cairngorms LBAP process, the Steering Group agreed that local communities should have a strong say in defining local biodiversity priorities as well as becoming involved where-ever possible in implementing plans for national and local biodiversity priorities. As a first step, the group held a series of six open meetings and two workshops across the Cairngorms Partnership area in 1998.

Reflecting local values:

Groundwork was done prior to these open meetings to raise public awareness of the LBAP, and to encourage involvement and participation. This ground work led to good attendance at the meetings, with 30 people on average per meeting. After a short introduction to biodiversity and

the LBAP, the attendees were asked to record the important local features and especially the species and habitats that were important to them, along with the main threats and opportunities for the habitats and species selected. A series of reports from each meeting was produced to record comments and integrate into future work of the project. A number of letters were also received from local people who were unable to attend the meetings, but wished their views to be considered.

An evaluation of the locally '*important*' species and habitats identified during these consultations was carried out and presented to the LBAP Steering Group. It was clear from the consultation that local biodiversity knowledge, awareness and support varied considerably for species across different taxonomic groups. A '*Species Action Plan*' based approach to local action, would command reasonable local support for well known species, particularly mammals and birds e.g. Red squirrel or Black grouse. However, it was much less clear what sort of local support would be forthcoming for more obscure species e.g. Aspen hoverfly or the plant Alpine sulphur tresses.

Throughout the document '*key*' species and habitats are often mentioned and these are defined as those listed under the UK Government's Biodiversity Action Plan and/or highlighted by consultees during local consultations as especially important to them. It is not the purpose of this document to list all species requirements and therefore provide management guidelines for all 400 BAP listed species in the area. This document highlights, where known, the most pressing biodiversity issues for UK Priority species and other species with important populations in this area. Most of the text for the species accounts follows published information on the species, but often this is based on UK problems and trends, and changes have been made to highlight Cairngorms related issues where these are known.

From the first meeting it was clear that there was widespread and strong local support for action based around habitats. Thus, the obvious route to delivering action for a range of local and national biodiversity priorities would be through '*Habitat Action Plans*' and this was the approach adopted by the Cairngorms LBAP Steering Group. The Steering Group recognised that whilst this approach was supported by the local communities and was the most sensible way forward to deliver general biodiversity action, it might not focus enough attention on the specific issues associated with local and national species priorities. To ensure that the species element was not neglected, it was decided to include the issues affecting the key local and national species in the relevant Habitat Action Plans (HAPs). By using this approach the LBAP Steering Group hopes to raise awareness of species issues alongside, and not separate from, the important habitat issues. Thus, compared to other areas in Scotland, the Cairngorms LBAP has adopted a combined habitat/species approach to biodiversity action in the area.

In each HAP a series of (usually four or five) targets and objectives have been set. The nature of these targets varies between habitats, depending upon how much is known about them, the current status and the immediate threats or pressures upon them.

Target 1 usually relates to '*ascertain extent*' of a habitat where this is not known. It is important to know how much of a habitat exists if plans to conserve and enhance the resource are to be successful (and measured) – thus, where information is lacking there is usually a target to ascertain the area of a particular habitat. Some habitats are well researched and require little or no new action under this target e.g. native pine woodland, whilst others are poorly known and could be further researched e.g. Aspen woodland.

Target 2 usually relates to avoiding a loss of '*key*' sites from across the area – this does not assume no change in the area of habitat, for ecological change is always happening, merely that there is an assumption that the best sites should not be lost. However, in particularly rare or threatened habitats e.g. montane scrub, the targets are for absolutely no loss, as there is so

little remaining. It is not possible to stop loss unless information is available on the current extent and distribution of the resource in question.

Target 3 usually relates to the issue of maintaining the *'favourable or good ecological status'* of key sites (the current best existing resource) and is usually also targeted to encourage the appropriate management of such areas, thereby helping the habitat sustain its characteristic species. Some internationally important habitats, such as blanket bog, cannot be recreated in human timescales, therefore, once inappropriate management happens it is very difficult or impossible to reverse the changes.

The definition of *'good ecological status'* will necessarily be habitat specific and often technical in nature. For those interested in such definitions, the published UK Habitat Action Plans usually describe the special attributes of particular habitats and the relevant appropriate or inappropriate management. This document is not meant to be too technical, so it does not define these terms and instead refers the reader to the UK plans or the relevant lead partner for further specific details.

Target 4 usually aims to *'avoid the loss and/or range of key characteristic species'* of particular habitats. This target is meant to link the important species in the area with the habitats they inhabit. There is an underlying assumption that the loss and decline of native species is undesirable. The issues likely to cause this to happen are highlighted in the individual key species text boxes and, where appropriate, referenced to actions that should take place in the management of the habitat. This is an aspirational target because for most species we do not have quantifiable baseline data on their current population status in the Cairngorms. At the very least, the number and distribution of Priority species should be such that they maintain a sustainable population in the Cairngorms area.

Target 5 may relate to an objective to *'expand the area'* of a habitat by a particular amount. Wherever possible, such expansion targets are related to expansion targets listed in the national UK Habitat Action Plans. Only where a habitat is particularly threatened, localised or in decline are expansion targets made. Some of these targets are ambitious, such as doubling the area of montane scrub or the trebling the area of Aspen woodland. However, the current extent of these habitats is very small, so a doubling of area would not result in large changes to landuse in the Cairngorms. For every area of habitat expansion, there will be a reciprocal decline in another habitat. It is anticipated that these changes in the relative small overall areas of rare habitats would be accommodated by reductions in common and widespread habitats such as acid grassland, planted conifer woodland and perhaps upland heath. That is not to say that these habitats are not important in their own right, but with such widespread and common habitats there are likely to be many areas that are not of special importance and it is these areas where such change should occur. For example, the trebling of the Aspen resource in the Cairngorms could be primarily accomplished with the restructuring of existing planted conifer woodlands. This could happen without threatening any key or important sites of these widespread habitats.

Links to adjacent LBAP areas

The Cairngorms LBAP is bordered, and in places overlapped, by three adjacent LBAP areas; North East, Highland and Tayside. These three areas also have LBAP partnerships working towards the same general objectives for their areas. The plans outlined in this document have been developed alongside those of adjacent LBAP areas and complement their proposed actions and targets. The LBAP partners (several of who have representatives sitting on the adjacent LBAP groups) felt that the pressing biodiversity issues of the Cairngorms were best dealt with on a pan-Cairngorm basis, rather than individually on a local authority boundary basis. Five local authority areas occur in the Cairngorms Partnership area.

If you would like further information on these adjacent LBAP partnerships please contact:

- Tayside LBAP Partnership, c/o Environmental Services, Perth and Kinross Council, Pullar House, 35 Kinnoull St, Perth, PH1 5GD.
- NE Scotland LBAP Partnership, Doig Scott Building, Craibstone Estate, Bucksburn, Aberdeen, AB21 9YA.
- Highland Biodiversity Partnership, The Highland Council, Planning & Development Service, Glenurquhart Road, Inverness IV3 5NX.

HOW TO USE THIS DOCUMENT

Consider what is important to you about the natural heritage of the Cairngorms. This will help you choose where you may wish to dip into these pages and where you may wish to comment on ideas, targets and objectives, and where else you feel that you may be able to make a contribution.

The Cairngorms LBAP Steering Group believes that every effort should be made to ensure that as many people as possible comment on and become involved with the Cairngorms LBAP. This 'Cairngorms Local Biodiversity Action Plan' document is detailed and quite technical in places, and not everyone will have the time or inclination to read it all. As part of raising awareness and widening the local involvement in the LBAP process a leaflet will be produced alongside the final main document. The leaflet will summarise the contents of the main document and point the way for future delivery and implementation of biodiversity action in the area.

Timescale and scope of the plan

The LBAP Steering Group has developed this plan during the last three years. The purpose of this document is to help take forward the six aims of the Cairngorms Biodiversity Project over the next ten or so years. It tries to identify the main biodiversity issues in the Cairngorms and where most effort should be put in the coming years. The timescales set for the action plan targets and objectives have been somewhat arbitrarily selected, but they reflect what is achievable for partners to set out in their forward work programmes (often with 5-10 year timescales). The Scottish planning system is plan led and this tends to look five to ten years ahead also, so consequently many of the targets are set with this timescale in mind.

Layout of each plan

This document comprises an introductory chapter and four principal habitat chapters consisting of a series of related Habitat Action Plans (HAPs), grouped together under the broad heading of either: (1) Farmland and grassland; (2) Montane, heath and bog, (3) Wetlands and water, and; (4) Woodland. Most HAPs have been defined using the relevant UK Biodiversity Action Plan definitions of habitats, however, where these were absent, inappropriate or inadequate the LBAP has tried to recognise the distinctiveness and importance of certain local Cairngorms habitats by defining them e.g. Aspen woodland.

Some of the HAPs fitted easily into one of the four principal habitat categories (e.g. native pine woodland under 'Woodland') but others could have perhaps appeared under one of two broad habitat categories (e.g. wet woodland could have appeared under 'Woodland' or 'Wetlands and water'). By choosing to define all the Cairngorms habitats under only one of the four broad habitat categories, we acknowledge that we may have over-simplified what is a rather more complex situation in reality. Therefore, it is important to consider each HAP in relation to adjacent habitats and not to look at each one in isolation.

Each of the four principal habitat chapters is laid out in the same manner and contains a summary of all the known up to date relevant information for each habitat and contains the

following sections:

- A brief '*Introduction*' to the broad habitat in the Cairngorms.
- A summary of the '*Opportunities for action in the Cairngorms*' for the habitat.
- The '*Main biodiversity issues*' for the broad habitat in the Cairngorms.
- The '*Main threats*' to the species using the habitat in the Cairngorms.
- UK '*Priority species*' and '*Locally important species*' accounts.

Additionally, for each specific Cairngorms habitat the following details are also listed:

- Habitat definition.
- Current status, distribution and significance of the habitat.
- The national biodiversity context of the habitat.
- Local targets and objectives for the habitat.
- Additional factors specifically affecting habitats in the Cairngorms.
- Wherever possible, a full list of UK Priority species, Species of Conservation Concern and Locally important species known to regularly use the habitat in the Cairngorms.

Species Action Plans have been published nationally for all the UK's Priority species. To avoid confusion, duplication and bureaucracy, the Cairngorms LBAP decided not to publish separate Species Action Plans for Priority species in the Cairngorms. Instead we propose to take action forward through the development, adoption and implementation of local Habitat Action Plans. Each broad HAP has a series of brief species accounts for all relevant Priority species, and those Species of Conservation Concern and Locally important species whose Cairngorms populations are considered to be high UK importance. Each species account includes:

- A brief summary of the species' favoured habitat.
- Locally important issues – which are referenced in superscript to relevant actions identified under the main HAP biodiversity issues.
- An assessment of the relative UK importance of the Cairngorms population.

There tends to be more up to date information on the status and threats to UK Priority species than most other species in the Cairngorms. Hence the broad analysis of main threats to species in each chapter focuses on the threats to the 'better known' Priority species. However, for most species listed in the plan there are no accurate quantifiable baseline data on their current population size and hence it is not possible to set meaningful expansion or recovery targets or even limits of acceptable change. For further species/habitat information, such as distribution maps (when known) please refer to the document '*Biodiversity of the Cairngorms*'.

Common threads or recurring biodiversity issues

Many positive things are happening to biodiversity in the Cairngorms. For example, major habitat restoration effort has been taking place as a result of substantial governmental, non-governmental and private sector involvement (e.g. Caledonian pinewoods and bog woodlands). Much of this work has been happening because of organisations working successfully together in partnership across the Cairngorms. However, there is still much to do and there are a number of common threads or recurring biodiversity issues that appear across the four principal habitats.

1. Lack of data and/or important information:

Despite being one of the most studied parts of Scotland, there is a lack of up-to-date important ecological data and information on many of the Cairngorms species and habitats. Indeed this issue affects species in every broad Cairngorms habitat. This lack of important information may delay, or even preclude necessary action from being undertaken. Therefore, these data deficient areas should form the focus of future research work and monitoring efforts by partners in the area. The role of Local Records Centres and other local recording groups in collating and supplying this sort of baseline information is likely to become important in the future development of the LBAP.

For example, fungi form an important component of the biodiversity of the Cairngorms and are probably the most data deficient taxonomic group in the area. It is not even possible, with accessible technology, to identify all fungi. This presents considerable difficulties when surveying fungi and trying to understand the factors that determine their well being. The phrase '*data deficient*' takes on a whole new meaning when considering fungi. Given their crucial role in recycling plant remains and living in symbiosis with many of our higher plants, trees and algae it is vital to take them into account in a document of this kind. The fruit bodies themselves are undoubtedly an important part of biodiversity, a delight to see and a source of shelter and nourishment for a wide range of organisms including invertebrates and mammals. Building on earlier work collating existing fungal records for the Cairngorms, this document is the first attempt to quantify the most important fungi of the Cairngorms by habitat and place the significance of this group of organisms fully in the public arena. This information was not available when the '*Biodiversity of the Cairngorms*' was produced.

2. Raising awareness:

In some instances, important and relevant data may exist, but action is limited through a general lack of awareness or understanding of the important issues and ways that such information is co-ordinated and made available. Local consultees suggested that the onus should be on the LBAP Steering Group members to ensure that where information is available it is used wherever possible to inform the community at large and appropriate management decisions which lead to direct action. Often, appropriate management payments may be available, but are not necessarily being directed towards those species and habitats in greatest need. Action on this issue requires little new money, just awareness to be raised and a willingness to be flexible within existing procedures.

Farmers, crofters, land managers and local advisors need advice and information on all important BAP habitats and species in the area to enable them to manage land for the benefit of wildlife. Until recently most locally supplied wildlife management advice was directed at generic changes to habitat management for broad groups of species e.g. farmland waders or occasionally to one or two high profile flagship species e.g. Capercaillie. With increasing awareness of the specific requirements of many BAP species, advisors who provide expert advice to land managers should attend specific training courses on BAP species that occur in the Cairngorms so that they can provide the specialist advice needed. The relevant local partners should be prepared to organise and run specific training courses if necessary. This could form part of a wider targeted awareness raising programme tied into action arising out of the latest research on Priority and Locally important habitats and species. It is also important that such advice should include the benefits to land managers of using the environmental elements of their holdings in a positive but sustainable manner.

3. Access to appropriate policy and funding sources:

In many instances, relevant information is available to help plan appropriate management, but suitable resources and funding mechanisms are lacking, thus halting action from being taken. The development of SNH's new '*Natural Care Programme*' might facilitate the delivery of new biodiversity action across a whole range of habitats and species in the area that are not covered by other funding mechanisms. Once again it will be up to the LBAP partners to ensure that biodiversity action has access to appropriate policy and funding sources. Where these do not exist it is expected that partners will identify the gaps, try to plug them locally and where this is not possible, pass this information up to a national level, where appropriate changes or adjustments to policies can hopefully be made.

4. Direct habitat loss and fragmentation:

Most direct habitat loss in the Cairngorms has been historical and has now stopped, but some habitats continue to suffer the loss of important areas (especially some traditional

farmland, grassland and moorland habitats). These losses may not be large, but they can isolate and fragment previously joined up areas, causing ecological processes to break down. This document highlights where these habitat losses have occurred and what habitats are in most need of 'emergency' action.

Some recent developments may have damaged or destroyed important, but non-designated local wildlife sites. Partners should work together to ensure that effective protection of important, but undesignated wildlife sites are fully considered when reviewing forward work plans. Biodiversity should be considered in planning decisions whether or not a designated area is likely to be affected. Such changes are happening, for example, the role of LBAPs is now recognised in the Highland Structure Plan.

Several local consultees suggested that 'cross compliance' should be used as a simple and effective tool to stop public money being spent on damaging development and land management activities. In essence this means that the right to receive public money should be made contingent on the land manager or developer fulfilling certain environmental requirements. The Agenda 2000 reforms to the Common Agricultural Policy use this approach for agricultural support payments.

In many areas outwith the Cairngorms it is not possible to link up similar habitat patches because adjacent habitats have been lost. In the Cairngorms, many semi-natural habitats in close proximity are in reasonable condition. By directing and targeting most local effort to managing existing habitats and making links between fragmented sites, this should greatly increase the value of existing sites without having to (re)create large new areas of additional habitat. Therefore, future habitat reinstatement and expansion should target isolated patches making them functional habitat units once again. It is also recognised that increased connectivity could have some negative as well as positive impacts by facilitating the spread of undesirable non-native species such as Grey squirrel or Sika deer.

5. Inappropriate management:

The majority of recent habitat loss can probably be attributed to inappropriate management leading to habitat destruction. In many instances, these recent management changes are reversible with the right information and political will. Partners can often make a difference to inappropriate management by making adjustments to their forward work programmes and considering the needs of particular species and habitats. However, large national or international macro-economic policies drive many of the most damaging activities. Often the problems are unlikely to refer to one small area, but affect the whole habitat across the Cairngorms or even Scotland. In such circumstances, it will be up to the partners to highlight these problems at a national or pan-Cairngorms level so that appropriate action can be taken.

Perhaps the single largest management issue affecting terrestrial habitats in the Cairngorms is that of appropriate grazing levels, especially of deer. Left unmanaged, with no natural predators, deer populations would increase until limited by environmental and population factors, a stage at which both their habitats and health would suffer badly. The Deer Commission for Scotland is responsible for the conservation, control and sustainable management of all deer species in Scotland and is actively involved in the Cairngorms area. The Deer Commission for Scotland supports local deer management groups, particularly supporting establishing monitoring data on population levels and target culls. Most estates are voluntary members of deer management groups that exist to co-ordinate deer management in particular areas. This is facilitated through the development of local deer management plans which take account of landuse interests such as agriculture, forestry and nature conservation.

Red deer counts in the Cairngorms showed a marked increase in deer numbers between the mid 1960s and 1980s in all areas. Today, overall the numbers appear to be broadly similar to 1983. At inappropriate population densities, deer can cause serious damage and require to be culled to protect a range of interests. In general it is accepted that a reduction of deer numbers is needed to benefit agricultural, forestry and natural heritage interests. If achieved this should result in improved habitats for a range of species (including deer) and enhance economic and sporting opportunities. However, as several commentators have observed, it is tradition and not biology that has historically dominated deer management in Scotland and this must change. At the same time, it is also acknowledged that some biodiversity management activities, such as fence removal for woodland grouse, will have significant consequences for deer management.

6. Climate change and pollution:

Climate change is likely to have profound effects upon the biodiversity of the Cairngorms in the future. Although most atmospheric emissions are outwith the Cairngorms direct remit, the partners should where possible, raise awareness of the issues with the public and policy makers. For example, there are opportunities to link the impact of emissions from UK cities, imaginatively with the visitors from these areas. It should be noted, recent evidence suggests that sulphur deposition in the area is beginning to decline and nitrogen deposition is now becoming more important than acidification *per se* or is likely to become so in the future.

Nobody can be absolutely sure how the climate will alter in the coming decades and what the effects on different ecosystems will be. However, climate scientists predict that Scotland's annual rainfall will increase significantly, along with dramatic storm events and large-scale flooding in the next 50-100 years. Scotland is also likely to become wetter, warmer and windier. A brief synopsis of the impact of predicted changes on Scotland's habitats and species has been produced (based primarily on the recently published MONARCH report). The possible response of animals, plants and fungi include toleration, dispersal, invasion, displacement and local extinction. For example, species with a northern and upland distribution could lose suitable climate space, whilst those species with a southern distribution could benefit and expand in the region.

Partners should ensure that their activities do not damage or compromise the value of the national Environmental Change Network monitoring sites e.g. Lochnagar and Allt a' Mharchaidh. Local partners should continue to support data collection at these sites and the wider dissemination of relevant information and encourage a review of existing monitoring sites to see if they properly represent a full range of Cairngorms habitats.

It should be noted that neither the Cairngorms climate nor its environment is static, change is an ongoing process, with or without human influence. Despite many people's pessimism, it is possible to carry out management locally that might help to mitigate some of the effects of climate change. For example, directing native woodland planting to degraded upland stream sides is known to stabilise banks, support invertebrate and fish communities and help reduce the impact of erosion associated with extreme flood events (that are predicted to rise in the Cairngorms as a result of climate change). Allowing habitats and species to expand and contract altitudinally is likely to be key to conserving much of the Cairngorms special biodiversity. Local partners need to plan with climate change in mind now, so that local biodiversity has the ability to adapt to a rapidly changing environment in the future.

Pollution may be a localised problem in a few areas, but the majority of the Cairngorms air and waters are very clean and used as a bench mark by others to judge the quality of their environment.

7. Non-native or alien animal and plant species:

In Scotland, native species are usually considered to be species which have colonised naturally since the last ice-age, and exotic or alien species are those that have been introduced by humans. Several non-native species have been introduced, either deliberately or accidentally, and have become established in the area. Whilst not all non-native species pose a threat to the biodiversity of the Cairngorms, some can kill, harbour diseases and compete with native species.

Wherever possible, every attempt should be made to stop non-native species becoming established in the area. There is a legal and moral responsibility towards conserving our native species. By removing the natural biogeographic barriers, problems for native species are likely to develop. Partners should promote understanding of the often unforeseen problems caused by non-native species, whilst avoiding demonising these species or generating hysteria. Allied to this, is vigilance to prevent further unwitting or deliberate introductions and to act quickly when a problem becomes evident by assessing the feasibility of remedial action and undertaking appropriate measures. Prevention is cheaper, easier and more effective than removal or control.

Local partners should appraise and consider cost-effective targeted remedial action (removal) of damaging present and potentially future non-native introductions. It is important to ensure that those people involved in the removal of non-native nuisance species are sufficiently trained so that they can correctly identify the species of concern and understand the potential impacts and legal constraints surrounding the procedure of removal (be it chemical, mechanical or physical). Finally, partners should make freely available appropriate tools, information and training (e.g. Mink traps and practical guidance) to land managers to facilitate the effective removal and, where possible, targeted eradication of damaging non-native species from the area.

Discussions on the merits or otherwise of native species reintroductions were considered out-with the scope of the LBAP as this is usually a national issue and is not best dealt with by LBAPs.

Issues cutting across boundaries

It is relatively easy to draw administrative boundaries to suit action plans, but species and habitats do not recognise such artificial categories and constraints. Therefore, the separate Habitat Action Plans in this document should not be looked at in isolation, but considered alongside other relevant plans. For example, flood plain management needs to consider the wetland and water HAP, the woodland HAP, and farmland and grassland HAP issues together. Understanding and making the ecological links between different plans is essential to successfully plan biodiversity action for the future.

Finally, partners should also be aware of issues associated with important archaeological sites by ensuring that adequate baseline surveys are carried out prior to biodiversity management and that site managers know the exact locations of important archaeological sites in an area.

Action for species and habitats that ‘falls between the gaps’

Most actions in this document are cross-referenced to solutions, actions and targets outlined in the relevant Habitat Action Plans. However, some issues have little to do directly with habitat management, and require additional efforts outwith the direct remit of the HAP (for example, illegal pearl fishing for the endangered Freshwater pearl mussel). These issues have been emphasised and the LBAP Steering Group will shortly review the best methods of supporting appropriate action. In the meantime, most local partners’ action will be directed primarily at the habitat and species issues identified in this document.

DELIVERY AND IMPLEMENTATION

The next phase of the Cairngorms LBAP process is the most important and it concerns the delivery of the targets and objectives outlined for the various HAPs and their associated species. This document provides a mandate for action for all the partners to *'make a difference'* on what is considered to be important in the area. Interspersed throughout the text are a number of brief reports on practical biodiversity projects that have recently been undertaken. These examples are not meant to cover every aspect of current action, but simply provide local examples of recent practical biodiversity action.

How is action going to take place?

Delivery of the action plans will need to take place on at least three levels, national, pan-Cairngorms and local. The remit of this plan is the latter two. The main method to achieve this will be to work closely with individual partners and local communities to find opportunities to deliver action through existing plans and strategies, but also through new policies, initiatives and sources of funding. This *'signing-up to action'* process is inherent in all LBAPs and is the main method of action plan delivery. Lessons from other LBAP areas show the failure of simply ascribing actions to organisations, individuals and agencies without first having their agreement of what action is possible. The recently published Scottish Biodiversity Group report *'A Flying Start: Local Biodiversity Action in Scotland'* gives detailed accounts of practical examples of LBAP delivery across Scotland.

The approach taken to identify the main biodiversity issues has tried to be thorough and has inevitably resulted in a long list of recommendations for action in the area. Partners will be working on many issues over different timescales and therefore we have avoided prioritising the actions identified in this report. It will be up to local partners to build as many of these actions as possible into their forward work programmes.

Each HAP has a set of identified biodiversity actions that a variety of local partners have agreed need carrying out. These actions have been formulated by local expert working groups to tackle the factors that are thought to be having a negative effect on the biodiversity of the Cairngorms. Some of these actions are very specific and there is not always an opportunity for everyone to get directly involved in all the actions. However, general actions for habitats and species that anyone can contribute to have also been included.

Who is directly involved in the Cairngorms LBAP?

Anyone and everyone with an interest or concern in biodiversity conservation can become involved. Many of the local partners have already been involved in the development of the LBAP and will continue to be involved in the delivery of many of the plan's objectives and targets. However, some important local partners have not yet become fully engaged in the biodiversity process and one of the main jobs for the LBAP Steering Group is to get wider ownership of the resource accepted. Local people also have an important role to play in the choices they make in everyday life (see *'How you can help'* below) and the pressure they can bring to bear on the attitudes and behaviour of politicians, agencies, companies and organisations in the area.

This document is the *basis* for delivery, but it does not necessarily indicate who will actually implement each individual action. Following the launch of this LBAP document in 2002, the Steering Group will begin the *'signing up'* process and working with relevant partners to facilitate this, many who have been closely involved in drafting the actions needed. The actions and targets identified in this action plan will help meet the biodiversity and sustainable development objectives set out by the Cairngorms Partnership's Management Strategy. Partners' plans will clearly overlap with LBAP objectives and thus hopefully aid their delivery. A prime example of this are the local authorities, whose Development Plans, Community Plans and Local Agenda 21

strategies, amongst others, should all play an important role in delivery of the LBAP.

The *partners* delivering this plan will be those with either a remit (i.e. Government agencies) or those with a vested interest in the natural environment. The latter will be members of the Cairngorms local communities, undoubtedly crucial to this process, and include crofters, farmers, landowners, nature conservation groups, recreation groups, sporting interests and individuals who all have a vested interest in their natural environment. Delivery will involve everyone who has an interest in the Cairngorms, and this will be facilitated and guided by the current LBAP.

How you can help make a difference

If everybody in the Cairngorms made small changes, this would have a significant and positive effect for biodiversity. The items you buy (or chose not to) and the lifestyle choices you make have an impact on local and global biodiversity. Everyone can do their bit for biodiversity if they follow a few simple suggestions. But remember, above all, take the time to enjoy the beauty of the biodiversity of the Cairngorms around you. For more information on any of these issues please contact the LBAP project officer or your Local Agenda 21 officer.

Buying things

Reduce waste and have a positive impact on local and global biodiversity.

- Buy products that will last as long as possible.
- Buy items with as little packaging as possible.
- Reuse shopping bags.
- Buy recycled paper products.
- Try to ensure that any wood products you may buy are sourced locally and have a Forestry Stewardship Council (FSC) logo.
- Reuse and recycle as many products such as cans, bottles, paper as possible.
- Buy locally produced firewood and charcoal.
- Buy locally produced products such as meat and vegetables. This supports local farmers and crofters and reduces transportation costs.

Gardening

Wildlife friendly gardens can contribute to suitable wildlife habitats.

- Buy alternatives to peat based products.
- Plant native species that will provide food and shelter all year round for your garden's wildlife. SNH run an initiative called '*Plant for Wildlife and you'll never be short of visitors*'.
- Dig a pond if you have space and ensure that at least one edge is gradual and shallow enough to allow animals to use it safely.

- Grow your own organic vegetables.
- Leave 'wild areas' in your garden.
- Put up nest boxes, bat boxes and log or stone piles for insects.
- Reduce or better still stop your use of herbicides and pesticides and investigate ways of controlling pests and weeds naturally.

Getting involved

Do something practical and enjoy yourself at the same time.

- Participate in local conservation projects and activities, e.g. SNH run a '*School grounds grants*' scheme and a '*Grants for community and voluntary action*' scheme.
- Take part in wildlife surveys and give your records to relevant bodies including Local Record Centres.
- Discuss your local environment with neighbours and local community and start an action group for your local area. There are local organisations that can provide support and some funding for community based projects.
- Think about biodiversity when driving and reduce wildlife road casualties.
- Attach a bell to your cat's collar to reduce mortality to birds and small mammals.
- Keep your dog under control at all times, but especially during the nesting season for birds.
- If you see anyone acting suspiciously report the sighting (time, location, car

registration etc.) to the local police immediately. Egg collectors, pearl fishers, plant thieves and poachers are often caught through the vigilance of local people.

Reduce pollution

Ensure that Cairngorm rivers and burns remain clean and healthy.

- Do not flush non-biodegradable items down the toilet or sink.
- Store hazardous substances securely and dispose of them wisely.
- Reduce chemical use in the home and garden.
- Use biodegradable cleaning products, such as washing powder.

Climate change

Try to do your bit to slow it down as well as cutting your own costs.

- Use less energy, e.g. switch off lights and turn off your TV instead of leaving it on standby.
- Look into buying your electricity from so called 'green' renewable sources.
- Buy energy efficient appliances e.g. use energy saving light bulbs.
- Make your home or workplace as energy efficient as possible.
- Try to use your car as little as possible and reduce your speed when using it.
- Cycle, walk and car-share as much as you can. You'll keep fit, save money and help the environment.
- Use public transport whenever possible.

Awareness raising

Keep the profile of biodiversity high.

- Use local media to highlight positive progress on biodiversity conservation.
- MSPs, MPs, MEPs and local councillors all want your vote. Through letters, surgeries and e-mail correspondence you can help to ensure that biodiversity remains high on their agendas.

Wise water use

Minimise your use of water to reduce demand for new and existing water abstractions.

- Take a shower instead of a bath
- Put a brick in your toilet cistern
- Reduce your use of garden hose pipes
- Use a water butt to collect water for non-drinking uses such as watering the garden and washing the car

- Mend leaking taps and pipes
- Use a washing machine or dishwasher that is economical on water and when appropriate use the half load button to reduce the amount of water, electricity and detergent used
- Get a water saving tap head (they allow about 50% less water to gush out without spoiling performance)
- Mulch your garden plants - this will help keep moisture in and reduce the need to water during the summer
- Don't keep the tap running while you're not using it, e.g. when brushing your teeth - just turn it on when you need it.

Non-native species

Minimise the chances of accidentally introducing non-native species to the Cairngorms.

- Wherever possible, select native plant species for your garden or pond.
- Dispose of unwanted aquarium plants properly (by drying and burning them) and do not throw them into drains, ponds, ditches or burns.
- Remove vigorous or aggressive non-native species from your garden or land holding (e.g. Japanese knotweed or Himalayan balsam) to stop garden escapees becoming a problem.
- Avoid getting or giving 'problem' animals as pets e.g. Non-native Grey squirrels do not make good pets and can pass on diseases or viruses to native Red Squirrels if they come into contact with each other.
- Do not release non-native 'problem' animals into the wild under any circumstances and seek expert advice instead.
- If fishing, do not use non-native fish as live-bait and always wash waders and clean equipment if moving to and from different water bodies.
- Be vigilant. Report any sightings of 'problem' non-native species such as Grey squirrels to relevant organisations and Local Record Centres.